The 117th ICR Annual Symposium

THE 117TH ICR ANNUAL SYMPOSIUM

(1 December 2017)

ORAL PRESENTATIONS

MORISHITA, Hiroki (Inorganic Photonics Materials)
"Electrically Detected Magnetic Resonance of NV Centers in Diamond"

MORIYAMA, Takahiro (Nanospintronics)
"Antiferromagnetic Spintronics"

KAWAMOTO, Jun (Molecular Microbial Science)
"Function of a Polyunsaturated Fatty Acid in an Antarctic Cold-adapted Bacterium"

TAMURA, Takeyuki (Mathematical Bioinformatics)
"Computational Design of Metabolic Networks for Production of Valuable Compounds"

SUZUKI, Katsuaki (Molecular Materials Chemistry)
"Development of Highly Efficient Thermally Activated Delayed Fluorescence Emitters and the Orientational Analysis of Organic Amorphous Thin Films Using DNP-NMR"

— ICR Award for Young Scientists —
IWAMOTO, Takahiro (Synthetic Organotransformation)
"Iron-Catalyzed anti-Selective Carbosilylation of Internal Alkynes"

TAKEUCHI, Katsuhiko (Organometallic Chemistry)
"A Square-Planar Complex of Platinum(0)"

— ICR Award for Young Scientists (Foreign Researcher's Category) —
LE, Phuong Quang (Nanophotonics)
"Free Excitons and Exciton-Phonon Coupling in $CH_3NH_3PbI_3$ Single Crystals Revealed by Photocurrent and Photoluminescence Measurements at Low Temperatures"

— ICR Award for Graduate Students —
SUGAHARA, Tomohiro (Organoelement Chemistry)
"Highly Bent 1,3-Digerma-2-silaallene"

FUJIMORI, Shiori (Organoelement Chemistry)
"Germabenzenylpotassium: A Germanium Analogue of a Phenyl Anion"

FAN, Weijia (Polymer Controlled Synthesis)
"Synthesis of Multivalent Organotellurium Chain Transfer Agents by Post-modification and Their Applications in Living Radical Polymerization"

— ICR Grants for Promoting Integrated Research —
SHIMOAKA, Takafumi (Chemistry for Functionalized Surfaces)
"pMAIRS Study of Swollen Functionalized Concentrated Polymer Brushes"

IWAMOTO, Takahiro (Synthetic Organotransformation)
"Study of Magnetic Field Effect in Iron-Catalyzed Reaction"

BLANC-MATHIEU, Romain (Chemical Life Science)
"The Evolutionary History of PIP5K Subfamily B Genes in Core Eudicots"

POSTER PRESENTATIONS

LW : Laboratory Whole Presentation
LT : Laboratory Topic
GE : General Presentation

— Organoelement Chemistry —

LW "Studies on the Synthesis and Properties of Novel Organic Compounds Containing Heavier Elements"

— Structural Organic Chemistry —

LW "Research Activities in Structural Organic Chemistry Laboratory"

GE NAKAMURA, Tomoya; SHIOYA, Nobutaka; SHIMOAKA, Takafumi; HASEGAWA, Takeshi; MURATA, Yasujiro; WAKAMIYA, Atsushi
"Naphthalene Diimide-Based Electron-Transporting Layer for Perovskite Solar Cells"

— Synthetic Organic Chemistry —

LW "Current Topics of Fine Organic Synthesis"

GE SHIBAYAMA, Hiromitsu; TAKEUCHI, Hironori; UEDA, Yoshihiro; FURUTA, Takumi; KAWABATA, Takeo
"Synthetic Studies Towards Coriariin A"

— Advanced Inorganic Synthesis —

LW "Current Research Activities in Advanced Inorganic Synthesis"

— Chemistry of Polymer Materials —

LW "Research Activities in Laboratory of Chemistry of Polymer Materials"

GE EGUCHI, Hiroshi; SAKAKIBARA, Keita; TSUJII, Yoshinobu
"Synthesis of Bottle-Brush Polymers Containing Polyallene Skeleton in Their Main Chain"

— Polymer Controlled Synthesis —

LW "Research Activities in Laboratory of Polymer Controlled Synthesis"

GE SUN, Liansheng; KAYAHARA, Eiichi; YAMAGO, Shigeru
"Synthesis and Physical Properties of [10]Cycloparaphenylene Derivatives with Hydro- and Benzoquinone Units"

GE LI, Xiaopei; NAKAMURA, Yasuyuki; YAMAGO, Shigeru
"A Study on the Termination Mechanism of Radical Polymerization of Acrylonitrile"

— Inorganic Photonics Materials —

LW "Research Topics of Inorganic Photonics Lab"

LT ASHIDA, Takaki; HAYASHI, Kan; TANIGUCHI, Takashi; MORISHITA, Hiroki; FUJIWARA, Masanori; HATANO, Mutsuko; MIZUOCHI, Norikazu
"Nitrogen Doping Control for High Sensitivity of Diamond Quantum Sensor"

GE MARUYAMA, Yuuichi; DANJYO, Takuya; WATANABE, Akira; KATO, Hiromitsu; MAKINO, Toshiharu; YAMASAKI, Satoshi; MORISHITA, Hiroki; FUJIWARA, Masanori; MIZUOCHI, Norikazu
"Spin Coherence Time of NV Center in Phosphorus Doped Diamond"

— Nanospintronics —

LW "Recent Research in Nano-Spintronics Lab"

LT HAM, Wooseung
"Temperature Dependence of Spin-Orbit Effective Fields in Pt/GdFeCo"

— Biofunctional Design-Chemistry —

LT ARAFILES, Jan Vincent; KAWANO, Kenichi; FUTAKI, Shiroh
"Novel Macropinocytosis-Inducing Intracellular Delivery Peptides"

GE TAMEMOTO, Naoki; AKISHIBA, Misao; SAKAMOTO, Kentarou; KAWANO, Kenichi; FUTAKI, Shiroh
"Evaluation of Antimicrobial Activity of Endosomolytic Peptide L17E and Some Analogues"

— Chemistry of Molecular Biocatalysts —

LW "Research Activities in Laboratory of Chemistry of Molecular Biocatalysts"

— Molecular Biology —

LW "Research Topics of the Laboratories of Molecular Biology"

— Chemical Biology —

LW "Create New World of Bioactive Synthetic Molecules"

— Molecular Materials Chemistry —

LW "Molecular Materials Chemistry"

GE HABUKA, Yume; SUZUKI, Katsuaki; SHIZU, Katsuyuki; KAJI, Hironori
"Device Characteristics of Solution Processable Blue and Green Thermally Activated Delayed Fluorescence Materials"

— Hydrospheric Environment Analytical Chemistry —

LT ZHENG, Linjie; MINAMI, Tomoharu; TAKANO, Shotaro; SOHRIN, Yoshiki
"Sectional Distributions of Fe, Ni, Cu, and Cd in the North Pacific Ocean in Dissolved and Labile Particulate Fractions"

GE TSUJISAKA, Makoto; TAKANO, Shotaro; HIRATA, Takafumi; SHIN, Ki-Cheol; MURAYAMA, Masafumi; SOHRIN, Yoshiki
"Estimation of the Paleoenvironment Based on Molybdenum and Tungsten in the Japan Sea Sediment"

— Chemistry for Functionalized Surfaces —

GE KISE, Ryuma; SHIOYA, Nobutaka; SHIMOAKA, Takafumi; MORITA, Kohei; SONOYAMA, Masashi; AMII, Hideki; TAKAGI, Toshiyuki; KANAMORI, Toshiyuki; EDA, Kazuo; HASEGAWA, Takeshi
"Influence of the Molecular Packing of a Fluorine-based Self-assembled Monolayer on the Surface Hydrophobicity"

GE TOMITA, Kazutaka; SHIOYA, Nobutaka; KISE, Ryuma; SHIMOAKA, Takafumi; HASEGAWA, Takeshi
"Effect of Fluorine Solvent or Fluorine-based Self-assembled Monolayer on the Structure of a Porphyrin Derivative Thin Film"

— Molecular Microbial Science —

LW "Laboratory of Molecular Microbial Science"

GE CHEN, Chen; KAWAI, Soichiro; KAWAMOTO, Jun; IMAI, Tomoya; KURIHARA, Tatsuo
"Analysis of Protein Secretion via Membrane Vesicle Production by a Newly Isolated Cold-adapted Bacterium, *Shewanella* sp. HM13"

— Polymer Materials Science —

LW "Polymer Material Science"

GE TSUJIOKA, Kota; OGAWA, Hiroki; TAKENAKA, Mikihito; OKUDA, Hiroshi; TAKAGI, Hideaki; SHIMIZU, Nobutaka
"Depth-dependent Structural Analyses in PS-*b*-P2VP Thin Films as Revealed by Grazing Incidence Small Angle Scattering with Tender Region Energy"

GE KUROSAKI, Satoshi; TAKENAKA, Mikihito; TERASHIMA, Takaya
"A Creation of the New Structure of Directed Self-assembly by Diblock Copolymer Having Crystalline Side Chains"

GE OKAMOTO, Masanori; OGAWA, Hiroki; TAKENAKA, Mikihito; MIYAZAKI, Tsukasa; KANAYA, Toshiji
"*In Situ* GISAXS Measurements of Wire-Coating and Spin-Coating Process in PS-*b*-P2VP Thin Films"

GE FUJITA, Shuhei; TAKENAKA, Mikihito
"A Study of Induced Density Fluctuations of Glassy Materials"

— Molecular Rheology —

LW "Introduction of Laboratory of Molecular Rheology"

— Molecular Aggregation Analysis —

LT MURDEY, Richard
"Field-dependence of Charge Separation in Pentacene Thin Films"

— Particle Beam Science —

LW "Research Topics in Accelerator Laboratory"

GE MIYAWAKI, Eisuke; TONGU, Hiromu; IWASHITA, Yoshihisa
"RF Synchronized Laser Ion Source Using Ultra Short Pulse Laser-measurement of Gas Density"

GE TAKEUCHI, Yusuke; IWASHITA, Yoshihisa; TONGU, Hiromu; MIYAWAKI, Eisuke
"Development of High Speed Ion Species Analysis System with Permanent Magnet"

GE KATAYAMA, Ryo; IMAJO, Shohei; IWASHITA, Yoshihisa; KITAGUCHI, Masaaki; MISHIMA, Kenji; YAMASHITA, Satoru; YOSHIOKA, Tamaki; SEKI, Yoshichika
"Development of the Time Focusing Method of Ultra-cold Neutron for the Neutron Electric Dipole Moment Measurement at J-PARC"

GE TONGU, Hiromu; IWASHITA, Yoshihisa
"Development of Nondestructive Inspections for ILC Superconducting Cavity"

— Laser Matter Interaction Science —

LW "Research Activities in Laboratory of Laser Matter Science"

GE NISHINO, Shogo; HASHIDA, Masaki; FURUKAWA, Yuki; KOJIMA, Sadaoki; INOUE, Shunsuke; SAKABE, Shuji
"Coloring Metal by Femtosecond Laser Pulses"

GE FURUKAWA, Yuki; KOJIMA, Sadaoki; TERAMOTO, Kensuke; MORI, Kazuaki; INOUE, Shunsuke; HASHIDA, Masaki; SAKABE, Shuji
"Creation of Nanostructures on Titatanium Plate by Double-pulse Femtosecond Laser Irradiation"

GE NISHIURA, Yosuke; INOUE, Shunsuke; TERAMOTO, Kensuke; KOJIMA, Sadaoki; NAKAMIYA, Yoshihide; HASHIDA, Masaki; SAKABE, Shuji
"Study on Detection of Specific Ion Species with CR-39"

GE YOSHIDA, Masahiro; KOJIMA, Sadaoki; INOUE, Shunsuke; NAKAMIYA, Yoshihide; HASHIDA, Masaki; SAKABE, Shuji
"Fast Time-resolved Imaging Method by Image Plate"

GE TERAMOTO, Kensuke; TOKITA, Shigeki; TERAO, Tokinori; INOUE, Shunsuke; YASUHARA, Ryo; NAGASHIMA, Takeshi; HASHIDA, Masaki; SAKABE, Shuji
"Generation of THz Surface Wave by Intense Laser Irradiation on a Metal Wire"

GE KOJIMA, Sadaoki; TERAMOTO, Kensuke; INOUE, Shunsuke; HASHIDA, Masaki; SAKABE, Shuji
"Superthermal Electron Acceleration by a Multi-picosecond Relativistic Laser Pulse"

— Electron Microscopy and Crystal Chemistry —

LW "Research Activities in Division of Electron Microscopy and Crystal Chemistry"

GE LAI, Ming-Wei; HARUTA, Mitsutaka; NEMOTO, Takashi; KURATA, Hiroki
"Studying Ordered Defect Structures in α-Fe_2O_3 Nanowhiskers by TEM and Monochromated STEM-EELS"

— Atomic and Molecular Structures —

LW "Introduction of Atomic and Molecular Structures Laboratory"

— Synthetic Organotransformation —

LW "Research of Synthetic Organotransformation"

GE OKUZONO, Chiemi; IWAMOTO, Takahiro; ADAK, Laksmikanta; JIN, Masayoshi; NAKAMURA, Masaharu
"Enantioselective Synthesis of α-Aryl Propionic Acids by Iron-Catalyzed Suzuki–Miyaura Coupling"

GE UENO, Ryo; ISHIBASHI, Kosuke; ISOZAKI, Katsuhiro; TAKAYA, Hikaru; NAKAMURA, Masaharu
"Photocatalysis of Gold Clusters Functionalized by Peptide Dendron Thiolates"

— Advanced Solid State Chemistry —

LW "Introduction of Advanced Solid State Chemistry Laboratory"

GE NIWA, Yasuyuki; KAN, Daisuke; SHIMAKAWA, Yuichi
"Epitaxial Growth of Transparent Conducting Tin Oxide by Mist CVD Technique"

— Organometallic Chemistry —

LW "Activity Report: Organometallic Chemistry Laboratory"

GE YAMASHITA, Natsumi; WAKIOKA, Masayuki; OZAWA, Fumiyuki
"Direct Arylation Polymerization of Dithienylethenes Promoted by Highly Selective Palladium Catalysts"

— Nanophotonics —

LW "Recent Research Topics of Nanophotonics Group"

— Chemical Life Science —

LW "Research Activities in Laboratory of Chemical Life Science"

GE KANEKO, Hiroto; BLANC-MATHIEU, Romain; ENDO, Hisashi; OGATA, Hiroyuki
"Do Marine Eukaryotic Viruses Drive the Global Carbon Export?"

GE PRODINGER, Florian
"Perfecting the Conditions for Diversity Analysis of Giant Viruses"

— Mathematical Bioinformatics —

LT LIU, Pengyu; BAO, Yu; HASHIDA, Morihiro; ISHITSUKA, Masayuki; NACHER, Jose C.; AKUTSU, Tatsuya
"Analysis of Critical and Redundant Vertices in Controlling Directed Complex Networks Using Feedback Vertex Sets"

— Bio-knowledge Engineering —

GE WIMALAWARNE, Kishan; MAMITSUKA, Hiroshi
"Convex Coupled Matrix and Tensor Completion"